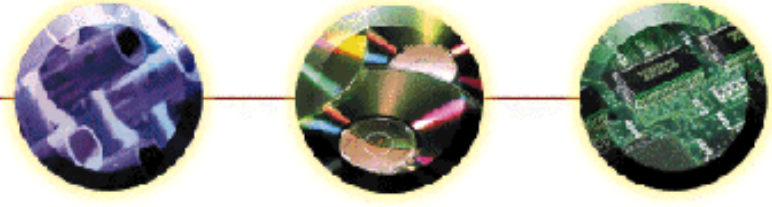
spectrum

enterprise manager

Core Software Release Notice

SPECTRUM 5.0 Rev 1



CABLETRON SYSTEMS

Summary of Changes

Version	Date	Reason/Rational	Nature of Changes
5.0.1	9/98	Update	-Convert old models to new model types ***PRIOR*** to installing SPECTRUM 5.0 -Added new Sizing Tool information under System Requirements. -Updated Corrected and Known Anomalies.

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Cabletron Systems, Inc.
P.O. Box 5005
Rochester, NH 03866-5005

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Preface

Purpose of This Document

This Software Release Notice (SRN) accompanies each copy of the release package for version 5.0 of SPECTRUM. The SRN is intended to accomplish the following:

- alert the user to product enhancements or changes
- list hardware and software requirements for the current version
- identify any updates or corrections to related documentation.

Updates to this information will be issued and packaged with each subsequent release/revision of this product. It is strongly recommended that you read the accompanying document each time you receive an updated version of the software so that you will be aware of any changes in the product or the associated documentation.

This document does **not** contain installation instructions. To install SPECTRUM or any of its optional or included applications, or other related components, consult the ***SPECTRUM Installation Guide*** and/or hard copy instructions included with the installation media.

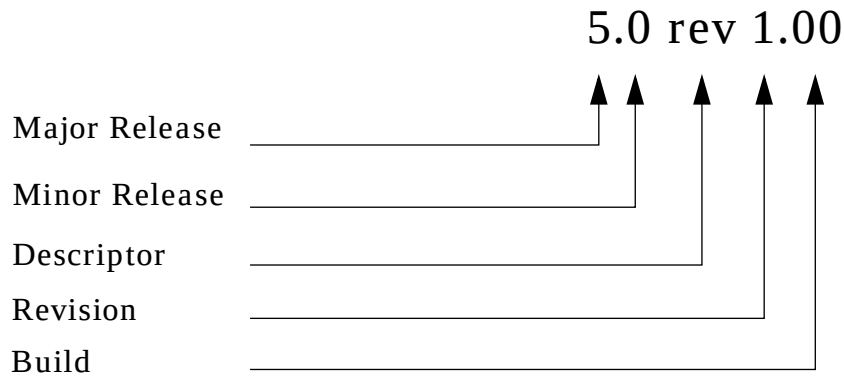
How This Manual Is Organized

The following outlines the organization of the Core Software Release Notice for SPECTRUM 5.0.

Chapter	Description
Chapter 1 **Overview**	Describes the new features, feature support, system requirements, supported versions, and MIB revisions for this release of SPECTRUM.
Chapter 2 **Corrected Anomalies**	Lists and describes the anomalies and problems in SPECTRUM core products and applications that have been corrected since the last major release of SPECTRUM.
Chapter 3 **Known Anomalies**	Lists and describes the known core product and applications anomalies and problems that were identified and noted in this major release of SPECTRUM which will be addressed and/or corrected in post-release revisions
Appendix A **Model Conversion**	Describes how to perform the conversions required for SPECTRUM models of certain Cabletron and third-party vendor devices after you have upgraded from version 4.x of SPECTRUM to version 5.0. Explains and details the installation and configuration necessary for running this release of SPECTRUM. Post-installation and font installation procedures are also detailed.

Version Control

SPECTRUM's numbering scheme for version control consists of up to four numeric fields as well as an alphabetic descriptor as shown in the following diagram.



Major Release - Increments to the number in this field represent major changes in the product's design, functionality, or user interface. Major releases are planned well in advance and occur no more frequently than once per year.

Minor Release - Minor releases are scheduled product upgrades that provide new or enhanced features but do not represent functionality changes as significant as those involved in a major release. Minor releases may occur one or more times per year.

Descriptor - This field identifies the current version as either a revision to a major/minor release (rev) or a revision to a test release (alpha or beta).

Revision - This field is incremented for subsequent revisions to a release and is reset to zero for each new major/minor release.

Build - This field is primarily used for internal tracking of individual builds under a particular revision and is not usually visible to the customer. You will encounter build numbers only in conjunction with alpha and beta test releases or special, limited distribution "support" releases.

Related Reading

Refer to the following documentation for more information on using SPECTRUM and managing TCP/IP-based networks.

LAN Troubleshooting Handbook, Mark Miller (1989, M&T Publishing, Inc.) 2nd Edition, 1993

The Simple Book — An Introduction to Internet Management,
2nd Edition, Marshall T. Rose, Prentice Hall, 1994
ISBN 0-13-177254-6

Computer Networks, 2nd Edition, Andrew S. Tanenbaum, Prentice-Hall, Inc., 1989
ISBN 0-13-162959-X

Internetworking with TCP/IP, Vols. I & III, Douglas E. Comer and David L. Stevens, Prentice Hall, 1993
ISBN 0-13-474222-2

Local Area Networks Architectures and Implementations,
James Martin & Kathleen K. Chapman for the Arben Group, Inc. (1989, Prentice-Hall, Inc.)
ISBN 0-13-533035-1

Questions about SPECTRUM Documentation

Send your questions, comments or suggestions regarding SPECTRUM documentation to the Technical Communications Department directly via the following internet address:

spectrum-techdocs@ctron.com

Chapter 1

Overview

Product Description

SPECTRUM is Cabletron's Network Management System for large-scale, multi-LAN, multi-node communication networks. SPECTRUM is based on a client/server model. The client, which provides the graphical user interface (GUI), is called **SpectroGRAPH**, and the server, which includes the SPECTRUM knowledge base, is called **SpectroSERVER**.

- **SpectroGRAPH** provides the on-screen representation of the network model and allows the user to access, modify, and retrieve information from this model using mouse and keyboard operations. The network information can be presented from various perspectives or "views" that show WAN, LAN, device, or board connections, geographical locations, or organizational relationships.

- **SpectroSERVER** comprises the Virtual Network Machine (VNM) and the Device Communications Manager (DCM). The DCM is the communications engine that allows communication with network devices regardless of protocol. The VNM is SPECTRUM's knowledge base. It uses Cabletron's Inductive Modeling Technology (IMT) to provide the intelligent software machinery that models the interconnections and interrelationships among actual network devices.

Together these core client and server modules support a variety of vendor-specific management modules that allow the user to create working models of individual network devices. These models

continuously collect data from the devices they represent. As a result of this polling process, SPECTRUM gains extensive knowledge about any network that it is managing. By analyzing this information, an administrator can maximize system performance while minimizing cost.

New Features in SPECTRUM 5.0

This section provides an overview of new features and options to be offered in SPECTRUM 5.0:

- **Year 2000 Compliance For All SPECTRUM Components:** SPECTRUM 5.0 provides Year 2000 compliance so that enterprises can implement and deploy their Year 2000 network well ahead of time. SPECTRUM represents dates showing all four (4) digits for the year (i.e. 2000), correctly processes date-related information and associated date stamps during and after the Year 2000 and for Leap Years, and displays date information retrieved from hardware devices showing the number of digits as provided by the hardware devices.

- **Wide-Area Fault Isolation**: The intelligence of Wide-Area Fault Isolation has been simplified and made more predictable to help solve both customer and developer questions and problems. The old method of monitoring each connected port's Internal Port Link Status has been removed, and thus no longer asserts the Probable Link Failure alarm. It has been replaced with the following strategies:

  -If both devices that are connected to the WA_Segment model (used to model connections within a WAN) report back that they are DOWN, the WA_Segment's contact will be LOST and a GRAY alarm will be asserted on it. The contact status of the WA_Link (a model type used to form a relationship between two devices on opposite sides of a WAN) will also be LOST and a GRAY alarm will be asserted on it as well.

  -If only one of the connected devices reports back that it is UP, then the WA_Segment's contact becomes LOST, and a GRAY alarm is asserted. The WA_Link's contact becomes LOST, and a RED alarm is asserted.

  -If both devices report back that they are UP, then contact becomes ESTABLISHED and no alarm is asserted.

- **Improved Reconfiguration Intelligence**: Accurate modeling of devices is critical to SPECTRUM. To achieve that accuracy, the intelligence responsible for the correct modeling of a device and its interfaces has been significantly improved. Intelligence now monitors the number of interfaces and reconfigures them when this value changes. You also have the ability to turn off any reconfiguration that occurs due to changes in the number of interfaces. Intelligence now uses the MAC address of an interface to uniquely identify an interface, thereby reducing the number of reconfigurations SPECTRUM must perform to accurately model a device.

  A new Reconfiguration view allows the user to control many aspects of the reconfiguration intelligence in the following areas:

  -when reconfiguration is needed as a result of changes to the number of interfaces

  -when reconfiguration is needed as a result of Link Up/Link Down traps
  -the ability to force the model to re-examine its modeling and correct it immediately. This function is useful when you prefer that SPECTRUM NOT detect the changes itself but rather react to changes when directed.

  The intelligence responsible for interface creation and model reconfiguration accomplishes more accurate modeling while reducing the amount of network management traffic sent out to the devices.

  Users can now set the IP address and subnet mask associated with an interface (i.e. the addresses shown in both the DevTop and Device views) via the new Secondary Address Panel. Once set, those addresses remain assigned to the interface until changed by the user, or a reconfiguration occurs. Previously, the addresses would be reset when the user left the view.

- **Live Pipes Service Implementation**: The Live Pipes feature has been improved to allow the user greater control using them. Additionally, this functionality is less resource-intensive and is more accurate when reporting alarms.

  A new "service" model has been made available for the Live Pipes intelligence. The service of Live Pipes is ON by default which means that SPECTRUM calculates the link conditions of any links which the user makes "live." Live Pipes is enabled by default although individual links are "non-live" when first created and made "live" by the user. A graphical view now exists which gives the user the ability to enable or disable Live Pipes. When the service of Live Pipes is disabled, all pipes representing resolved connections display as gold, and all pipes representing unresolved connections display as silver. With this implementation, you immediately see if the service of Live Pipes is disabled once the view is cloned or reopened.

  The color of the pipe (i.e. condition of the link) is calculated on demand. This calculation is made by identifying the link status associated with each port. When Live Pipes is enabled, SpectroGRAPH calculates the link condition once every 60 seconds. The user now has the option of changing the poll time in one of the port's Model Information view for that link by changing the `pipePollTime` X resource.

  Individual links can be made to poll their current condition. By default, no link performs polling unless SpectroGRAPH is running. This change was made to reduce the amount of network traffic. However, with the release of SPECTRUM 5.0, the user now has the ability to select critical links and establish a polling interval for those links. The VNM then periodically checks the condition of the link without requiring any participation of SpectroGRAPH. This is extremely useful for customers with connections that must be maintained 24 hours a day.

  The alarms generated as a result of Live Pipes have been re-examined and made more meaningful. Only the ports connected to other devices generate alarms. Additionally, alarms are generated only when you enable Live Pipes.

  All alarms that are generated are now clearable by users who have read/write privileges.

- **Redundancy Intelligence**: Redundancy Intelligence, an important component of Fault Tolerance, has been made more predictable and reliable. The intelligence now allows SPECTRUM to contact devices with a failed address through the cycling of alternate addresses, each of which is capable of communicating with that device. When one successful address is found, SPECTRUM maintains contact with the device using the found alternate address.

  Redundancy Intelligence is divided into two separate operations. The first is the ability to identify those devices that are capable of redundancy, and building the list of redundant addresses to be used in reestablishing contact with the device. The second operation is the actual process SPECTRUM uses in attempting to regain contact with a device with which it has lost contact.

  The list which the Redundancy intelligence cycles through while attempting to re-contact a lost device is called the Redundancy Preferred Address (RPA). It is created by reading the device's IP Address Table and placing every valid IP address it finds into the RPA.

  The RPA has the additional feature of being editable by the user. Special icons and views now exist that allow the user to add or remove addresses.

  Network administrators now have a new feature called the Redundancy Excluded Addresses (REA) list in which they can require SPECTRUM to identify which IP Addresses should NEVER be used when attempting to reestablish contact with a device.

  Other enhancements include the following: Alarms and events have been improved for clearer, more informative comprehension by the user. Fault Isolation will try Redundancy before generating an alarm.

- **Duplicate Model Intelligence Improved**: Duplicate Model Intelligence now enforces the rule that only one model may exist in the VNM for each physical device in the modeled network. This enforcement makes intelligence more efficient and easier for developers to understand and modify. Inference handlers contribute to the following intelligence:

-Detection of duplicate models.

-Detection of those device models that have the same IP address but different MAC addresses.

-Detection of those device models that have the same MAC address but different IP addresses.

-Automatic replacement of models with the same MAC address according to the level of their disposable precedence.

- **Condition Rollup Intelligence**: New functionalities have improved Condition Rollup intelligence in the following areas:

  -Rollups: Collection models such as LANs, Subsidiaries, and Devices now have their conditions affected by models in other associations rather than just the default association.
  -Rollup Children: Prior to SPECTRUM 5.0, a model's children were determined by one specific relation, which was dependent on the model type. Now, a model type can determine its "rollup children" by reading a new attribute that lists the relations used to determine the rollup children.

  -Organizational View Models: A rollup condition is now associated with an Organizational model. The Organizational model will have a blinking rollup condition shown on its down-arrow icon when a device organizes or when a model has an alarm condition associated with it.

- **Automatic Lost and Found Model Destruction**: You can now automatically destroy models in Lost and Found. Automatic Model Destruction can be configured to automatically destroy the models in the LostAndFound at regular intervals. This view is available by clicking **View -> Current View Information** in the Lost and Found view. Three user-configurable options are available. These are: **Automatic Model Destroy**; **Model Destroy Interval**; and **Next Model Destroy Date & Time**. These are defined as:

  -Automatic Model Destroy: This button controls automatic initiation of LostAndFound Model Destruction. If "Disabled" is selected, no automatic model destruction is initiated. If "Enabled" is selected, automatic model destruction is initiated. This service is now "Enabled" by default.

-Model Destroy Interval: With automatic model destruction enabled, you determine in hours and minutes the interval between automatic model destruction. The default interval is 24 hours and 0 (zero) minutes. Any value can be entered for hours and minutes.

-Next Model Destroy Date & Time: This sets the date and time for the next scheduled destruction, when automatic model destruction is enabled. The Next Model Destroy Date & Time is automatically set to 24 hours from the time the VNM is first started. But you can enter a date and time for the first destruction. Subsequent destructions are performed automatically at the interval set by the Model Destroy Interval Hours and Minutes settings. You can have automatic model destruction occur at the same time every hour, every day, every week, and at any regular interval.

- **AutoDiscovery**: All user settings are now saved on the Auto-Discovery panel so that the next time you invoke AutoDiscovery, those settings are saved. Additional new features are:

  -Unnecessary Models Reduced: AutoDiscovery is now prevented from creating Discrete LAN models for switches or bridges that have a direct port-to-device connection. This reduces the number of unnecessary models created during AutoDiscovery.

  -Deselect Router Discovery: You can now deselect router discovery as a discovery method for a particular run. This allows you to run a LAN Discovery on desired LANs without incurring the overhead associated with Router Discovery.

- **Background Discovery**: SPECTRUM is now able to continue the discovery process using a new functionality called Background Discovery. After AutoDiscovery has completed, Background Discovery continues the discovery process based on the IP ranges of networks that AutoDiscovery has modeled, and the devices that could not be contacted at the time of the execution of AutoDiscovery. Background Discovery runs on behalf of the following models: LAN, Network, and Universe. The Background Discovery view is accessed under the **File** -> **Edit** -> Background Discovery.
  Background Discovery uses the following steps to contact models:

  -A List of IP Addresses is Found to Discover: If an AutoDiscovery has ALREADY been run, any IP address that was not identified will be saved for Background Discovery to discover.

If an AutoDiscovery has NOT been run, but the user has saved a Network Address and Subnet Mask in the model (LAN, Network, or Universe), Background Discovery generates a list of IP addresses that are in the range of the model on which it was run.

If Background Discovery has no IP addresses to discover, it automatically shuts itself down.

-Protocols and Community Names: The user has full control over protocols and community names used during Background Discovery. On the Background Discovery view you now have the choice of either modeling or not modeling pingable devices. Simple Network Management Protocol (SNMP) is automatic and always running. If an AutoDiscovery has been run before Background Discovery has started, the community names used during AutoDiscovery are used for Background Discovery and can be viewed in the community name box of the Background Discovery view. If AutoDiscovery has not been run, the community list defaults to “public”. You may add or remove community names from this list at any time. The community names on this list are then used the next time Background Discovery is run.

The list of IP addresses that are scheduled for discovery can now be viewed.

You can move addresses that are within the range of the network to and from the “Undiscovered Address” list.

Background Discovery is accessed through a pull down menu of each model that is capable of Background Discovery.

Background Discovery can be set to run in intervals of: minutes, hours, or days.

- **Improved Router Discovery**: Network efficiency has been improved by using a new approach to Router Discovery. Router Discovery now allows separation of router discovery from the reading of the IP routing table. Router discovery now offers two options: discovery by reading IP routing tables (for comprehensive and complete mapping); or discovery by reading the IP address table (for very fast mapping).

The intelligence has been simplified in finding seed routers, calling for the appropriate discovery action on the Routers List, adding the found nexthop routers to the Router List, and calling the router discovery mapping action on each router.

- **Alarm Acknowledgment**: Alarms can now be chosen according to acknowledged and unacknowledged states. Individual alarms can now be acknowledged from the Alarm Manager.
- **Alarm Probable Cause**: A standard format has been designed for all probable cause files. Standardization helps the network manager by providing a consistent format for displaying alarm information. The new standard format and descriptive information for each probable cause file facilitates your response to each alarm.
- **Attribute Names Match MIB Names**: Finding SPECTRUM attributes has now been made easier. Attribute names have been changed to the name of their corresponding MIB (Management Information Base) object, from which they were defined.
- **SpectroSERVER API Improvements**:

  -Alarm Acknowledgment: You now have the ability to acknowledge individual alarms within a model, instead of acknowledging the entire model.

  -Find Attribute By Object ID (OID): Attributes can now be found by searching object IDs in a new table. This table is loaded dynamically and only grows when queried. Attribute information retrieved from the VNM is based on its corresponding OID key. This allows you to find SPECTRUM attributes that match MIB variables.

  -Model Name Length: Prior to SPECTRUM 5.0, model names were limited to 32 characters (some model names were limited to only 16 characters). This was too short for some models, particularly device names with DNS (Domain Naming System) expanded names. Model name length has been increased to 1024 characters.

  -Synchronous SS API VNM/Landscape Map Updates: A new option is available to disable VNM/landscape map polling and remain attached instead. This allows the **Synchronous SS API**

VNM to learn faster about the existence of a newly installed SpectroSERVER.

-Print SS API Version: You can now print the SS API version number.

-Non-Blocking Asynchronous Mail Service Option: The non-blocking option allows applications to start up faster during initial server connection.

-SS API Versioning: The following SPECTRUM 5.0 applications can now connect to older servers running 4.0 Rev.3: SpectroGRAPH, Event Configuration Editor, NetWide, Alarm Manager, SpectroWATCH, User Editor, Client View, and Link View.

-Connections and Errors Enhancements: SS API connections are now more reliable, and the application is able to make multiple distributed requests to down servers without repeated long timeouts. Error messages now provide more information resulting in better diagnosis of the problem.

-Attribute Value Length Unlimited: Developers have been limited by the number of bytes they could store in a variable length attribute's value. The 32k maximum limit has been removed, allowing storage of large documentation files, sound clips, and images.

- **Improved Attribute Group Storage**:
  -Database Size Reduction: The size of the database has been reduced by approximately 15% upon a new installation.

  -Modeling Catalog Size Reduction: Runtime of the modeling catalog (SSdbload) and dbtool import has been reduced by approximately 15%.
  -Improved Efficiency of Client Queries: The efficiency of attribute-related client queries has been improved.

- **SpectroWATCH Enhancements**: You now have the ability to log list attributes. This permits a logged watch to be created for attributes that are of the type "list." This type of logged watch may also be used as a component in other watches.

- **Context-Sensitive Help**: SPECTRUM applications now have available online context-sensitive help. You are now able to place the cursor over a pre-defined area for which context-sensitive help has been enabled. When you enable help and click in that area, information about that area is displayed through a pop-up window.

- **SpectroGRAPH**: All SPECTRUM applications now visually indicate the state of VNM connections. Each application view and any views associated with the application now have a dynamically changing button that shows the following conditions as they occur: Connections are okay with no problems and no switched servers; all connections are DOWN; and a connection warning that means that at least one connection is up, but all other connections are questionable.

  Clicking this button accesses a dialog box that displays a tree of the following connection states: **Connection Down**; **Connection Up**; and **Connection Switched**. Clicking on any of these states displays the servers listed under the state, along with the number of connections to each server. When you click on a server, an **Error Log** lists the conditions of the state.

  -You can now enable an icon to become a single double-click zone that accesses the model's default view. You can also set the icon to have several hot spots that open to various views associated with the model.

- **Windows NT**: The following improvements have been made on the Windows NT platform:

  -Database-intensive processes now run faster on the Windows NT platform.

  -All SPECTRUM applications now have the look and feel of the Windows NT platform.

- **Easier Synchronization of IP Addresses**: You now can periodically schedule the synchronization of network node names within the Domain Naming System (DNS) and the Network Information Service (NIS) with their SPECTRUM model counterparts. This automated process eliminates the potentially error-prone chore of updating both databases.

- **Find View**: The search capability has been expanded to find keyed attributes.
- **Faster Application Runtime**: SPECTRUM applications now execute over 10% faster.
- **Event Configuration Editor**: A new standalone, Windows-like view now gives you a point-and-click filter-enhanced interface to search for event, alarm, and trap configuration files. The new Event Configuration Editor removes the burden of locating event and alarm files. You no longer need to exit SPECTRUM and use an ASCII editor to edit the files. Your changes also benefit from error-checking, which ASCII editors do not provide.
- **Web Alarm View**: The Web Alarm view, a Web-based HTML browser, now includes the following improvements:

  - Addition of Event information.

  - Addition of model-specific information, including location, contact person, and device notes.

  - A change in the Probable Cause/Status where all pertinent information on an alarm is listed on a separate page. This is linked to all applicable information about the device on which the alarm is occurring.

- **Alarm Manager**: The management of a world-wide network has been made easier through the following new Alarm Manager functionalities:

  - The following have been added the main Alarm Manager view: new menu titles and menu picks, replacement of the filter (now labeled “Filtered by:”), a new sort dialog, a new column order dialog, new default columns, a new Local Filter/Search area, and new table functionality that includes sorting (by clicking on column headers), column ordering (by dragging and dropping column headers) and column sizing (by dragging the column header separators).

  - When you save filter dialog settings they are saved to the User Model. This permits you to remotely log onto to your workstation and still get your workstation's configured environment.

- A new Preference Dialog offers the following list of preferences: Actions, Connection, Display, Notification, and Alarm Update Control, which is a mechanism that prevents the view from becoming unusable when the Alarm Manager is getting frequent updates.

-All alarms can now be viewed from a reasonable distance by toggling a bullet of color to a rectangle of color.

-Assigning a troubleshooter no longer automatically (by default) acknowledges alarms. You can now set a preference to automatically acknowledge an alarm upon the assignment of a troubleshooter.

-You now have the ability to: filter in or filter out alarms which do not have assignments; save filter dialog settings; and acknowledge individual alarms.

-At startup, the Alarm Manager initially connects to the default VNM specified on the command line or through SpectroGRAPH, instead of connecting to all landscapes. This improves performance at startup and reduces unnecessary alarms from VNMs in which you have no interest. To see alarms from additional landscapes, display the filter dialog and click on the landscape page.

-You now have the ability to filter out selected alarms in the alarms list (Hide Selected Alarms), and to re-display alarms that were hidden in this manner (Show Hidden Alarms).

- **Event Log (new Event View)**: The following new features have been added:

-Improved event data accessing through a defined “start and end” time range of events.

-Improved column listing that allows you to list by one or more event categories of event data information such as Date/Time, Model Name, Model Type, Event Code, User Name, and Event Message.

-Improved sorting and searching that allows you to quickly list and find the events you want to see.

-Print event data information.

-Access and display archived events seamlessly.

-Event Log now has a toolbar enabling the manipulation of the display of events.

-Improved filtering, searching, table functionalities, navigation from model-based events, and preference setting all increase Event Log usability.

- A new Preference Dialog offers the following list of preferences: Connection, and Display.

- **User Editor**: The User Editor application has been improved with Drag and Drop functionality.

Upgrade Warning

Some SPECTRUM management modules include model types that either have been deprecated with this release, or will be deprecated in the next major release. Deprecated model types are those replaced by newer versions. Some management module upgrades do not fully replace all model types within the module. If you are upgrading your system (i.e., installing SPECTRUM 5.0 over an existing older version), you are strongly urged to convert any models of the older types to their newer counterparts, ***prior to installing SPECTRUM 5.0*** using the procedure outlined in Appendix A, *Model Conversion*, of this document.

With the release of SPECTRUM 5.0, model types listed below under the Previously Supported column have been replaced with new model types listed under the Currently Supported column. New model types frequently encompass the previous as well as the current model type functionality.

Previously Supported	Currently Supported
SGI Workstation SM-SGI 1000	***Generic Host SGI*** SM-GHO1002
DEC Workstation SM-DEC1000	***Host for DEC*** SM-GHO1006
IBM Workstation SM-IBM1000	***Host for IBM*** SM-GHO1005
Wellfleet Router SM-WEL1000	***Wellfleet Series 5 MM*** SM-WEL1002
VitaLink Router SM-VIT1000	***<GenSNMP>***
Proprietary Protocol Management (NB-20, NB-30, and IRM-512) SM-CSI1008	***<none applicable>***

Supported Versions

Device firmware, software, or hardware versions used for testing the management modules supported by release 5.0 of SPECTRUM may be found by consulting the ***Management Module Software Release Notice.***

SpectroGRAPH

On a network that has a mixture of SPECTRUM 4.0 Rev 3 and 5.0 SpectroSERVERs, you cannot acknowledge individual alarms. Acknowledging individual alarms is a function of SPECTRUM 5.0. When using a SPECTRUM 5.0 client that connects to a 4.0 SpectroSERVER, functionality is limited to the lowest version of SpectroSERVER.

When a SPECTRUM 5.0 SpectroGRAPH is connected to a SPECTRUM 4.0 Rev 3 server, you see only the two ports of the link in the Information view of a resolved pipe. Associated devices and their containers do not show.

Distributed Database Management (DDM)

If you are migrating from SPECTRUM 4.0 Rev *x* to SPECTRUM 5.0, the 5.0 DDM database can be larger than the EventDB and the StatDB databases in prior releases. The disk space occupied by the DDM database automatically increases when migrating from 4.0 Rev *x* to 5.0. For this reason, Cabletron recommends that you reserve more disk space for the 5.0 DDM database.

This is not necessary, however, if you are a new customer since a new DDM database is empty and its file remains small.

Reports

In the SPECTRUM 5.0 version of Reports, only Alarms, and Inventory Reports run reliably against 4.0 Rev 3 SpectroSERVERS.

Statistical, Event, and UpDown reports will not function correctly against a 4.0 Rev 3 SpectroSERVER.

Data Export

In the SPECTRUM 5.0 version of Data Export, all exports, with the exception of Statistics and Events, will work against a 4.0 Rev 3 SpectroSERVER.

In the SPECTRUM 4.0 Rev 3 version of Data Export, all exports, with the exception of Statistics and Events, will work against a 5.0 SpectroSERVER.

PathView

The PathView application is not available with the release of SPECTRUM 5.0 Rev 1.

System Requirements

The following subsections list the hardware and software required for the ***basic*** SPECTRUM Network Management package on each of the supported platforms. Since SPECTRUM may be configured with more than one SpectroGRAPH, the suggested memory requirements for the Graphical User Interface and SpectroSERVER are presented separately. Suggested Minimum RAM and Suggested Minimum Available Disk Space requirements are presented both together and separately. All amounts shown are in megabytes.

The loading and operation of both SpectroSERVER and SpectroGRAPH on the same physical workstations may not be advisable due to the complexities of polling frequency, device type, and number of devices within a network. It is impossible to define all possible configurations, and therefore impossible to determine the system requirements for all possible configurations. Cabletron suggests the figures in this document as an **absolute minimum** for installation and operation. Consult your Field Engineer or SPECTRUM Support Representative for assistance in determining the ideal configuration for your network.

In the listings of platform-specific system requirements in this chapter, the following three definitions should be noted:

1. RAM is the amount of physical memory installed in the system. The amount of RAM is reported by the console upon powerup.
2. Available Disk Space is the amount of space available after the OS and all other applications have been loaded. A large database or event and alarm log archive files requires additional space. SPECTRUM with NetVisualyzer also requires more memory than listed in the platform-specific tables.
3. Swap Space is the amount of hard disk space allocated as additional memory to be used once the existing RAM has been exhausted. Swap Space is referred to as “Virtual Memory” in Windows NT.
4. SPECTRUM requires 8-bit color (or better) or a workstation with a graphics card or controller that supports 8-bit color (or better).

The SPECTRUM Online Sizing Tool

The SPECTRUM Online Sizer determines the number of SpectroSERVERS your enterprise needs to efficiently manage your distributed network. This is an especially useful tool if you are adding SPECTRUM to your enterprise for the first time or if you are creating a distributed SpectroSERVER environment for the first time. The sizer is used in conjunction with the PMCount utility which, when executed, provides the raw data (number of pollable models in a database, polling intervals, poll-to-log ratios, number of ports, etc.) used by the sizing tool. The information on polling intervals derived from running the PMCount utility and using the data in a subsequent sizing can help where polling/logging can be reduced or disabled thereby improving performance.

For detailed instructions on accessing and using the PMCount utility and on sizing your enterprise, please contact SPECTRUM Support (support@ctron.com).

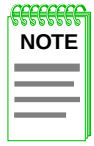
Determining RAM and Disk Space Requirements

Cabletron proposes RAM and Disk Space Requirements for each of the platforms included in this Software Release Notice as *suggested minimum*. However, your enterprise environment may require more RAM and disk space that exceeds the *suggested minimum* requirements.

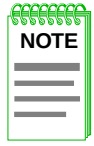
If SPECTRUM does not run adequately in your environment, consider the following questions:

- Is the server's swap space sufficiently set?
- Does your server use a lot of Virtual Memory? If so, allocate more swap space.
- Does your server have enough disk space left over to run SPECTRUM?
- Does your network have a lot of models for SPECTRUM to manage?
- Does your database have a lot of landscapes for SPECTRUM to manage?
- Are many applications associated with your VNM?

If your environment has these characteristics, you should consider adding an additional SpectroSERVER and/or installing more RAM.

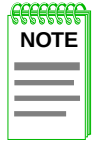


For platforms with an xdm-config file, the terminate Server entry should be set to "True." This helps control the size of the Xserver process by restarting it each time the user logs out of the SpectroGRAPH machine.



For users who intend to employ the SPECTRUM Level 2 Toolkits, an installed C++ program library is required. Check with your system vendor for more information about the C++ program library. Also refer to the Level 2 Toolkit Software Release Notice (SRN) for C++ compiler version information.

On the Windows NT 4.0 platform, DataFocus NuTCRACKER 1.6b is required to compile certain toolkits. You may obtain NuTCRACKER 1.6b by contacting DataFocus directly.



Some of the supported workstations cannot be configured with enough memory to operate both the SpectroSERVER and the SpectroGRAPH concurrently. They can, however, be used to run either the SpectroSERVER or the SpectroGRAPH individually.

Sun SPARCstation/Solaris 2.5.1/2.6

SPECTRUM supports the Solaris 2.5.1 and 2.6 operating systems on the following workstations:

Sparc 5 Sparc 10 Sparc 20 UltraSPARCs

SPECTRUM will install and run on Solaris 2.5.1 with OpenWindows 3.5.1 and CDE (Common Desktop Environment) 1.0.2.

SPECTRUM will install and run on Solaris 2.6 with OpenWindows 3.6, and CDE 1.2. SPECTRUM is compiled with C++ version 4.1 to run on Solaris 2.6.

Suggested Minimum Available RAM Space SPECTRUM

SpectroSERVER and SpectroGRAPH	128 MB
SpectroSERVER	96 MB
SpectroGRAPH	64 MB

Suggested Minimum Available Disk Space

SpectroSERVER and SpectroGRAPH	500 MB
SpectroSERVER	250 MB
SpectroGRAPH	250 MB

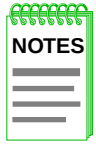
Suggested Minimum Available Swap Space

Swap space is only used after all available physical RAM has been exhausted. The amount of swap space needed on a Solaris workstation running the Solaris 2.5.1 and Solaris 2.6 operating systems is up to the discretion of the user. The following swap space is suggested:

SpectroSERVER and SpectroGRAPH	256 MB
SpectroSERVER	192 MB
SpectroGRAPH	128 MB

Additional Requirements

1. Check with your system vendor to ensure your CD-ROM system is compatible with your hardware configuration. (Cabletron currently uses Toshiba TXM-3301 Epsilon 1 double-speed CD-ROM drives.) You may also use the CD-ROM that is bundled with your Sun workstation.
2. CDE 1.0.2 for Solaris 2.5.1.



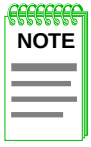
1. Under CDE's Window Style Manager, be sure to check the "Allow Primary Windows On Top" check box in order to permit pop-up dialog boxes to appear on top of a SpectroGRAPH view.

2. Under CDE's Window Style Manager, be sure to deselect the "Raise Window When Made Active" check box in order to easily dismiss the first displayed dialog box out of multiple dialog boxes.

3. Under CDE's Color Style Manager, be sure to choose "More Colors for Applications" in order to permit SPECTRUM to display in all its colors.

4. If the CDE Window Manager freezes on Solaris 2.5.1, a conflict may have occurred between two windows wanting mouse focus simultaneously. To end this conflict, press the "Open" key and then press the "Esc" key.

3. MIT X11R5 (X Window System, Version 11) on systems running Solaris 2.5.1, and MIT X11R6 on systems running Solaris 2.6.



SPECTRUM links the X libraries (libX11, libXt, and libXm) dynamically. On most systems, soft links from /usr/lib to the appropriate directories are created as defaults. If not, set the following environment variable in the SPECTRUM user's environment:

sh:
LD_LIBRARY_PATH=$LD_LIBRARY_PATH:/usr/lib:/usr/openwin/lib:/usr/dt/lib
export LD_LIBRARY_PATH

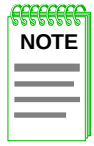
ksh:
export LD_LIBRARY_PATH=${LD_LIBRARY_PATH}:/usr/lib:/usr/openwin/lib:/usr/dt/lib

csh:
setenv LD_LIBRARY_PATH $LD_LIBRARY_PATH:/usr/lib:/usr/openwin/lib:/usr/dt/lib
(if LD_LIBRARY_PATH is already set)

OR:

setenv LD_LIBRARY_PATH /usr/lib:/usr/openwin/lib:/usr/dt/lib
(if the path is not already set)

If the X libraries are in a different directory, then add that directory to the path, separated by a colon.

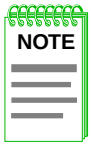


When installing on Solaris the user will need to include the following paths in their PATH variable:
/usr/bin
/usr/openwin/bin
/usr/ccs/bin

For C-Shell:
setenv PATH /usr/bin:/usr/openwin/bin:/usr/ccs/bin: ${PATH}

For K-Shell:
export PATH =/usr/bin:/usr/openwin/bin:/usr/ccs/bin: $PATH

For Bourne Shell:
PATH=/usr/bin:/usr/openwin/bin:/usr/ccs/bin: $PATH
export PATH



Cabletron recommends the following patches from Sun Microsystems in order to run SPECTRUM efficiently. These patches are subject to change as Sun Microsystems adds new patches or makes changes to existing patches.

The patches for Solaris 2.5.1 listed in this note are available either from Sun Microsystems or as a single tar file from SPECTRUM Support.

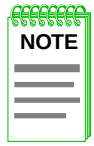
Patches
101242-12 – libC 4.0.1, 4.1, 4.2: Shared library patch for C++ 4.0.1, 4.1 and 4.2

103461-18 – Motif 1.2.3: Runtime library patch for Solaris 2.5.1
103558-11 – SunOS 5.5.1: admintool patch, y2000 patch
103582-15 – SunOS 5.5.1: /kernel/drv/tcp patch
103594-10 – SunOS 5.5.1: /usr/lib/sendmail fixes
103622-06 – SunOS 5.5.1: sd driver patch
103630-09 – SunOS 5.5.1: ip ifconfig arp udp icmp patch
103600-18 – * Required by 103640-08: SunOS 5.5.1: nfs, tlimod and rpcmod patch

103934-06 – * Required by 103640-08: SunOS 5.5.1: kernel/drv/isp patch
104735-02 – * Required by 103640-08: SunOS 5.5.1: platform/sun4m/kernel/drv/sx patch (for sun4m)

104736-03 – * Required by 103640-08: SunOS 5.5.1: usr/bin/csh patch
103663-11 – SunOS 5.5.1: libresolv, in.named, named-xfer, nslookup & ns
103686-02 – SunOS 5.5.1: rpc.nisd_resolv patch
103696-03 – SunOS 5.5.1: /sbin/su and /usr/bin/su patch
103796-13 – Creator 2.5.1: FFB Graphics Patch
103801-06 – SunOS 5.5.1: Patch for Solaris 2.5.1 make, sccs, as
103900-01 – OpenWindows 3.5.1: XView Binary Compatibility Patch
103901-08 – OpenWindows 3.5.1: Xview Patch
104010-01 – SunOS 5.5.1: VolMgt Patch
104162-02 – OpenWindows 3.5.1: snapshot fixes
104259-05 – SunOS 5.5.1: tmpfs patch
104317-01 – SunOS 5.5.1: nfsd patch
104331-04 – SunOS 5.5.1: rpcbind patch
104338-02 – OpenWindows 3.5.1: Resource file ignored when XtSetLanguageProc called

104453-02 – OpenWindows 3.5.1: textedit
104560-01– SunOS 5.5.1: /kernel/fs/hsfs patch
104644-01 – SunOS 5.5.1: /usr/ucb/stty patch
continued on next page



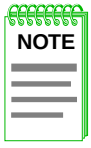
104654-03 – SunOS 5.5.1: automountd patch
104776-01 – SunOS 5.5.1: libvolmgt patch
105251-01 – OpenWindows 3.5.1: libXt Binary Compatibility Patch
103627-02 – SunOS 5.5.1: linker patch
104312-08 – SunOS 5.5.1: format and fdisk patch
104093-04 – OpenWindows 3.5.1: y2000 mailtool patch
104918-01 – OpenWindows 3.5.1: y2000 filemgr patch
104976-03 – OpenWindows 3.5.1: y2000 cm (calendar) patch
104977-01 – OpenWindows 3.5.1: y2000 perfmeter patch
104995-01 – OpenWindows 3.5.1: y2000 imagetool patch
103612-33 – SunOS 5.5.1: libc, libnsl, nis_cachemgr and rpc.nisd y2000 patch

103690-05 – SunOS 5.5.1: cron/crontab/at/atq/atrm y2000 patch
103866-03 – SunOS 5.5.1: BCP (binary compatibility) y2000 patch
103948-02 – SunOS 5.5.1: accounting y2000 patch
103959-05 – SunOS 5.5.1: lp y2000 patch
104433-06 – SunOS 5.5.1: pam security y2000 patch
104463-02 – SunOS 5.5.1: usr/bin/date y2000 patch
104490-02 – SunOS 5.5.1: ufsdump and ufsrestore y2000 patch
104816-01 – SunOS 5.5.1: usr/sbin/sar y2000 patch
104818-01 – SunOS 5.5.1: /usr/bin/passwd y2000 patch
104820-01 – SunOS 5.5.1: /usr/lib/saf/listen y2000 patch
104822-01 – SunOS 5.5.1: usr/lib/libadm.so.1 and usr/lib/libadm.a y2000 patch

104824-01 – SunOS 5.5.1: usr/vmsys/bin/initial y2000 patch
104854-02 – SunOS 5.5.1: troff macro y2000 patch
104873-03 – SunOS 5.5.1: /usr/bin/uustat and other uucp y2000 fixes
105016-01 – SunOS 5.5.1: usr/lib/libkrb.a and usr/lib/libkrb.so.1 y2000 patch

103566-24 – OpenWindows 3.5.1: Xsun y2000 patch
103640-12 – SunOS 5.5.1: kernel y2000 patch
103502-07 – Solstice AdminSuite 2.2: AdminSuite patch y2000 patch
104468-06 – Solstice AdminSuite 2.3/AutoClient 2.1: Jumbo patch, y2000, NIS+, 2.6

103876-03 – SunOS 5.5.1 (JFP 2.5.1): Japanese BCP libc patch
104857-01 – SunOS 5.5.1 (JFP 2.5.1): Japanese Year 2000 patch for LP
105058-01 – SunOS 5.5.1: BCP libc patch (Asian)
103670-04 – CDE 1.0.2: dtcm sdtcm_convert rpc.cmsd y2000 patch
105327-03 – CDE 1.0.2: sdtimage y2000 fixes
* Patches with an asterisk must be installed in order for the operating system to run correctly.



The patch for Solaris 2.6 listed in this note is available either from Sun Microsystems or as a single tar file from SPECTRUM Support.

Patch
105214-01 – SunOS 5.6: /kernel/fs/sockfs patch
105284-10 – Motif 1.2.7: Runtime library patch

Configuring a 24-bit Color Card

If you want your Sun workstation to display more colors with the windowing manager, be certain your 24-bit color card has been *configured* to do so. If you purchase a 24-bit color card, be certain to follow all installation instructions in the manual that comes with the card.

If a 24-bit color card is already installed but your workstation is not in 24-bit color mode, complete the following configuration instructions:

1. Become `root`
2. Create your own, user's defined `config` file by typing at the command line:
   `mkdir -p /etc/dt/config`
3. Navigate to the new `config` file by typing:
   `cd /etc/dt/config`
4. Create a file and name it `Xservers` by typing:
   `vi Xservers`
5. Enter the following one line string in the new `Xservers` file:
   `Local local_uid@console root /usr/openwin/bin/Xsun :0 -nobanner -dev /dev/fb 0 defclass TrueColor defdepth 24`

   Save and exit the `Xservers` file.
   The above string must be one continuous string on one line. It forces the windowing manager to take full advantage of a 24-bit color card. The string contains zeros, NOT uppercase o's.
6. Reboot or restart the Xserver.

If your workstation still is not in 24-bit color mode after following installation instructions in the manual that came with the card or after editing the `/etc/dt/config` file, contact Sun Microsystems for further assistance.

Microsoft Windows NT (OS 4.0)

SPECTRUM supports Microsoft's Windows NT 4.0 on Intel-based systems with 150 MHz (or greater) Pentium P6 CPUs. SPECTRUM has also been validated with all Service Packs up to and including Service Pack 3.

For the best performance, Cabletron recommends running SPECTRUM only on systems with Ultra Wide SCSI drives or Enhanced IDE (EIDE) drives.

Suggested Minimum Available RAM for SPECTRUM

SpectroSERVER and SpectroGRAPH	128 MB
SpectroSERVER	96 MB
SpectroGRAPH	96 MB

Suggested Minimum Available Disk Space

Disk space is calculated as the minimum required for SPECTRUM installation.

SpectroSERVER and SpectroGRAPH	600 MB
SpectroSERVER	300 MB
SpectroGRAPH	300 MB

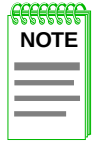
Suggested Minimum Available Virtual Memory

Virtual Memory is used only after all available physical RAM has been exhausted. The following Virtual Memory is suggested.

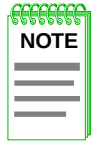
SpectroSERVER and SpectroGRAPH	256 MB
SpectroSERVER	256 MB
SpectroGRAPH	128 MB

Additional Requirements

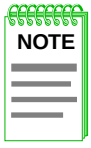
1. A 4X CD-ROM drive is necessary for loading SPECTRUM.
2. A 2 MB PCI Bus Video Card that supports a recommended minimum of 65K colors at a 1024 x 768 resolution.
3. A 17-inch color monitor for workstations running GUI clients.



SPECTRUM must be installed by a member of the local Administrators group.

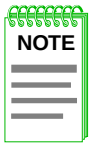


To ensure that SPECTRUM successfully installs, be sure Virtual Memory has been set appropriately. For a full explanation on Virtual Memory settings and procedure, refer to the SPECTRUM Installation Guide.

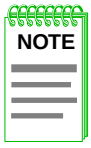


The installation process creates a local user group called "SPECTRUM Users." This group has Full Control permissions to the SPECTRUM directory tree.

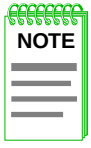
All users, including domain and trusted domain users, who are going to run SPECTRUM locally must be members of the SPECTRUM Users group in addition to being added to the SPECTRUM user database. Remote users of SPECTRUM only need to be added to the SPECTRUM user database and do not need to be added to the SPECTRUM Users group.



Cabletron recommends that SPECTRUM not be installed on a Domain Controller for performance reasons.



In order to maintain compliance with Microsoft's End User License Agreement for NT Workstation 4.0, Cabletron recommends installing SpectroSERVER and server applications on NT Server 4.0. Please refer to your NT Workstation 4.0 End User License Agreement and Server 4.0 End User License Agreement for complete details.



If you experience problems with window elements appearing incorrectly such as inverted or partially displayed text, make sure you are using the latest drivers for your video card.

Chapter 2

Corrected Anomalies

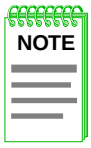
This chapter lists the known irregularities or anomalies that have been corrected since the previous revision of SPECTRUM. The corrections are listed under the particular core component with which the anomaly was associated.

SPECTRUM Installation Program

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. The Install GUI now updates the Progress Meter in the Installation Monitor window while performing a Link-Only option.
2. Installing SpectroGRAPH components only without deselecting the Select All **SpectroSERVER components** option now works correctly.
3. On the Windows NT platform, SPECTRUM installation no longer fails on systems with a processor revision that is greater than or equal to 304.
4. During installation on the Windows NT platform, there are no more problems encountered with the Exceed startup.

SpectroSERVER (VNM)



Database recovery is required following all segmentation faults in SPECTRUM 5.0. Failure to do so could result in further difficulties and database corruption.

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. On the UNIX platform, fault tolerance and Online Backup no longer fail.

2. On the Solaris platform, the Performance View along with other views that are accessed from this view no longer utilizes an excessive amount of cpu load that affects performance.

3. On the NT platform, fault tolerance and Online Backup no longer fail.

4. On the Solaris platform, when you shut down the SpectroSERVER then re-start it, you no longer receive an error message.

5. User account names on the NT platform are not case sensitive. In order for an NT user account name to be recognized by SpectroSERVER running on NT, the NT user account name must identically match the spelling and case of the SPECTRUM user name in the SPECTRUM user account database. This information has been added to the Security and User Maintenance documentation.

6. On the NT platform, if you execute the `SSdbload` program from the command line a `.VNMDB.LOCK` file is no longer created in the SS directory.

SpectroGRAPH (UI)

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. Newly created models no longer flash from gray to green after their creation.

2. The Annotation Tool Box now remains in Edit mode after selecting **Cancel** on changes made.

3. The Find View now works correctly for model types that do not have the `Security_String` attribute.

4. On the Sun platform, clones of views are now automatically updated when annotation is made to the original view.

5. When SpectroSERVER is shut down and the connection to the SpectroGRAPH is lost, the error box that appears no longer becomes unexpectedly filled with multiple error messages.

6. Applications under Client View now display their correct names.

7. SpectroGRAPH no longer exits when you press the **More** button in the Detail 1 View of a MIB-II Application, which then displays the Detail 2 View, and from which you **Close** from the Detail 2 View.

8. Performing a Find by model name can now be done when you enter a name that exceeds 16 characters.

9. On the NT platform, when you right mouse click with the caps lock button enabled (in the down position), the correct view is displayed.

10. On the Solaris 2.5.1 platform with fault tolerance active between a primary and secondary VNM, when the primary server is shut down and you click on the Connection Status box on either the Client View or the User Editor, a segmentation fault no longer occurs.

11. The following applications now correctly displays a tool tip when the cursor passes over any of the tool bar icons: Alarm Manager, Event Log, Client View, Enterprise Configuration Editor. On the User Editor, tool tips display for the following icons only: Attribute Save, Cut, Copy, and Paste.

12. On the Sun Solaris 2.5.1 platform, if you display the Alarm Manager with the Information Panel deselected, then click an alarm within the Alarm table, a segmentation violation no longer occurs in the Enterprise Alarm Manager application.

13. On the Sun Solaris 2.5.1 platform you can now increase then decrease the sound volume in SpectroGRAPH without modifying the resource file and restarting.

14. A segmentation fault no longer occurs when a model that is copied from a Location view to a Topology view is later deleted in the Topology view from View Path.

15. On the Windows NT platform, if a user who has Domain Administrator privileges logs into the domain and starts the Control Panel, an error message is no longer generated.

16. A segmentation fault no longer occurs when you create a usergroup or a user with a leading or trailing space and then later try to destroy that user.

17. Performing a Find by model type no longer displays all applications with undefined icons.

18. When you click for a Performance view on an icon that is blue, you now receive error message indicating that the device is not configured.

19. On the Sun platform, keyboard shortcuts in the Enterprise Alarm Manager window (e.g., `Alt+<a letter>`) now work properly.

20. On the NT platform, Notes View now has a Mail option.

21. On the Solaris platform, port Condition values for live pipes no longer become switched or display inappropriate color conditions.

22. In the Lost & Found or Find View, all models of type `ClientApp` now display with defined icons.

23. In LinkView on the Solaris platform, the Icon Subviews menu now offers all of the menu choices that are available through other SpectroGRAPH views.

24. Problems with the User Editor freezing because of ADMIN,0 have been corrected.

25. On the Windows NT platform, enabling Exceed X Server's **Batch Mode** now displays items in SpectroGRAPH correctly.

26. On the Windows NT platform, the Exceed X Server now displays remote SPECTRUM applications correctly.

27. When there is more than one pipe connected to a single fanout with two or more live links and you disable one link, all links no longer become "disabled."

28. On the Windows NT platform, when you attempt to modify colors that utilize a third-party tool kit, the new color defaults no longer adversely affect some of the background colors in the Enterprise Alarm Manager, Client View, and User Editor applications. In addition, changing the default font to a larger font no longer causes an overflow in text fields making labels and data unreadable.

29. On the Solaris 2.5.1 platform, you are now able to launch the RMON application from the Application View of a device.

SpectroWATCH

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. A segmentation violation no longer occurs when you attempt to **Jump** to a model/watch of a model type when that model type's folder is collapsed.

2. In Watch Manager on a SunSPARC station running Solaris 2.5, a segmentation violation no longer occurs when you change selection from FrameRelayPort to another model.

3. When a watch is modified in a way that causes its status to change, the status of that watch is now the same in the Watch Manager and Watch Editor applications.

4. When the VNM is highlighted in the Watch Editor and you hold down the control key to highlight more than one watch, a segmentation violation no longer occurs.

5. On the Windows NT platform, the Watch Editor no longer shuts down when attempting to reenter Alarm Descriptions after previously deleting an Alarm Description.

6. In Watch Editor, the error dialog box no longer freezes after clicking **OK** when trying to destroy watches which are referenced by other watches.

7. In both Watch Manager and Watch Editor on the Windows NT platform, the labels of some pull-down menus, buttons, tool tips, lists, and names of watches are no longer prefixed by tagged strings such as CsTS, CsTSpqui, etc.

Alarm Manager

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. If you are filtering on a device with only one alarm, the Alarm Manager no longer appears before the alarm information can be fully retrieved. The Alarm Manager view no longer lacks the alarm's probable cause when filtering on the VNM icon.

2. The Alarm Manager now automatically updates when it is filtered by model type.

3. The Alarm Manager no longer freezes when running hierarchical alarms. The size of the message queue can now be edited directly on the Alarm Manager view.

4. When you open the Performance view of any GnSNMPDev from the Alarm Manager, the correct application model now opens.

5. On the Solaris 2.5.1 platform, when you press the Caps Lock key so that it is in the "on" position, you can now select one of the tabbed folders (Probable Cause, Events, Location, Alarm Status, and Device Notes). You are now also able to change folders.

6. On the Solaris 2.5.1 platform, the Alarm Manager no longer segmentation faults when you highlight many alarms and then attempt to assign a troubleshooter to these alarms.

   On the Windows NT platform, when you highlight many alarms and then attempt to assign a troubleshooter to these alarms, the application no longer continues to run or attempts to run when you click the **Assign** button.

7. Assigning a troubleshooter to alarms on a remote landscape now works.

8. On the Solaris 2.5.1 platform, when you select a new RED Contact Lost Alarm from the Alarm Table and then right click it to get the pull down menu, the menu does not freeze.

9. The minimized Alarm Manager icon “flash green enabled” function now remains consistent.

AutoDiscovery

Previously Reported Anomalies Fixed in SPECTRUM 5.0

1. Starting Online Backup while Auto Discovery is running, no longer cause a VNM crash.
2. If you run Ring View Discovery on a model in an Auto Discovered fanout, both SpectroGRAPH and SpectroSERVER no longer core dumps.
3. AutoDiscovery now models devices with a Flexible Network Bus (FNB) (such as on FDDI LANs) without a bridging device.
4. AutoDiscovery and RingView no longer fails to reconfigure to the front panel ports on the MMACPLUS.
5. Pingable models with duplicate IP addresses now generate alarms.
6. Router discovery now works from the command line.
7. On networks using Network Health3.0 on the Solaris 2.5.1 platform, AutoDiscovery no longer fails to find models after completing a discovery process.

Client View

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. The mouse pointer no longer freezes after you double-click either an active or inactive client in order to display the Application Detail view.
   A fault segmentation no longer occurs when opening and closing many Client View windows.

2. Client View now always reports active and inactive clients. Totals for active clients are correct and shown in the view. Active clients are now listed correctly when using fault tolerant servers.

3. Attempting to print to a printer from Client View now works correctly when you use any valid printer name.

Event Configuration Editor

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. On the Solaris platform, if a user with a community string of ADMIN, 9 opens Configure Alarm Messages and then selects an alarm and clicks to delete it, a segmentation violation no longer occurs.

SpectroRX

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. On the Windows NT platform, when you invoke SpectroRX from the AlarmView and click the **Send To** button you no longer receive an error message.

User Editor

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. On the Windows NT platform, if you create multiple users in the User Editor and then minimize the User Editor, when you restore the User Editor, all users' creation boxes no longer reappear.

2. Modifications made to duplicate SpectroSERVER models now take effect and get propagated.

SPECTRUM MALT (MAC Address Locator Tool)

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. A segmentation fault and a core dump no longer occur when you run MALT on a Cisco router with certain MAC addresses.

SPECTRUM Control Panel (CPanel)

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. On the Windows NT platform, the Control Panel no longer consumes varying amounts of CPU resources.

SPECTRUM Online Backup

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. If you perform an online backup on the all platforms with polling suspended, data is now logged to the Events Log and the backup program no longer fails.

2. The Online Backup panel no longer accepts an ampersand symbol (&) as part of the Prefix for the Backup File Name, and thus the backup no longer fails.

3. The database date and time backup information now shows correctly on the Online Backup view.

SPECTRUM Reports

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. Repeatedly generating a report with the same output filename no longer causes the message, "`Unable to open file`" to appear and no longer necessitates restarting the Report Generator.

2. The alarm number no longer is missing when you generate an event report in which two events of the same event type occur at the same time. In addition, none of the events will be missing when you filter on an alarm condition.

3. On the Windows NT platform, generating and scheduling `.gif` and `.grf.ps` output files now works correctly.

4. When you run a report on an attribute for which data does not yet exist, the value for that attribute now correctly appears as a dash.

5. Tabular event reports no longer contain duplicate events and/or events with missing pieces in the Event Message.

6. On the NT platform, scheduled Alarm reports no longer are missing all of the line data.

7. Poll times now appear correctly in Statistical graphical reports.

8. Event reports no longer omit the alarm id.

9. The message in the Report Completed dialog box now shows the report filename.

10. Model names in event messages now appear truncated according to the length specified by the `REPORT_MODEL_NAME_LEN` environment variable in the `rptsscript` file.

11. Menu picks for Relational report templates and Rib files no longer show in the Rib Editor menus.

12. The Report Generator no longer freezes when you click the **OK** button in the Report Completed dialog box while the Applications menu is selected.

13. Statistical data information no longer displays negative numbers incorrectly.

SPECTRUM Data Export

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. Saving a definition file in SAS output format no longer is saved with an output mode of Date.
2. SAS exports no longer fail on the Windows NT platform.
3. On the Windows NT platform, filter operations no longer produce inconsistent results.
4. Data from SAS exports now reports the time from different time zones correctly.
5. SPECTRUM 5.0 Rev 0 is the last release that supports Rules Exports.
6. The **Clear All Entries** and **Reset To Defaults** options on the Edit menu now clear and reset all values for underlaying layers of events or statistics.
7. On the Windows NT platform, you can now schedule more than one definition file to run at a time.
8. When you export using a UNIX based Oracle server and Windows NT as the client the export completes and you are now able to view the table.
9. The user interface no longer freezes when a landscape that is in the preferred landscape list is shut down while you are in a Statistics or Events dialog box.

SPECTRUM Distributed Data Manager

Previously Recorded Anomalies Fixed in SPECTRUM 5.0

1. You now receive error messages when you attempt to perform `ddm_save` operation with the wrong permissions on the saved directory or when specifying invalid command parameters. You also now receive an error message when you attempt a `ddm_load` operation on an uninitialized database.

2. When you attempt a ddm_save operation on a badly corrupted database, `ddm_save` no longer goes into an endless loop.

3. The `reduce_archive script` now works correctly on the NT platform on systems where the `ls` command is aliased.

4. When you run an export or a report against a model with more than 16 attributes, all subsequent attributes are now output at the end of the same line.

5. When two events are logged to the event database with the same timestamp, model handle, and event code, they now appear in the event view.

6. Exports now succeed when only wildcard choices are made.

7. Exports of Model information to Oracle, Sybase, Ingres, and SQL Server databases no longer fail when model names longer than 31 characters are used.

8. Statistical data information now displays negative numbers correctly.

Chapter 3

Known Anomalies

This chapter lists the known anomalies or irregularities for this release of SPECTRUM. The anomalies (and solutions or workarounds wherever feasible) are listed under the particular core components with which they are associated.

SPECTRUM Installation Program

Problem 1: During a SPECTRUM installation on the NT platform, you receive a message that the file, `ctl3d32.dll`, is in use and moved to `ctl3d32.old`.

Solution: Receiving this message is a normal result of installing SPECTRUM on the NT platform.

Problem 2: On the Windows NT platform, if you install DataFocus' NutCracker in the `/Program Files/` directory, the Makefiles/Compiler/SpectroShell cannot correctly process the space between the words, "`Program`" and "`Files`". You receive the error message, `Link: fatal error LNK1181: cannot open input file "Files/NutC/lib/xm.lib."` NutCracker version 1.6bfix1 does not support installations to directories with spaces in the directory name.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 3: During an installation on a Windows NT workstation, you may receive the message, `"! The Security log file is full."`

Solution: You may safely ignore this message. It can be avoided by increasing the size of the NT Security Log, purging the NT Security Log or instructing the Security Log to overwrite older events as needed. These changes can be made in Start | Programs | Administrative Tools | (Common) | Event Viewer | Log | Log Settings. You may also want to disable security auditing since it affects performance. Security auditing can be turned off in NT Explorer by right-clicking the directory which is being audited and selecting Properties | Security | Auditing.

Problem 4: After installing SpectroGRAPH on both the Solaris 2.5.1 and Windows NT platforms, and then you run the installer again, you receive a warning that only some components were installed. The Component Selection display shows incorrect data after a SpectroGRAPH-only or SpectroSERVER-only installation.

Other possible problems include: selected components may or may not install; when you choose a filter selection, then click **equal**, then click **Select All**, the installation fails.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 5: On the Solaris 2.6 platform running Common Desktop Environment (CDE) 1.2 manager, when you select the install icon from the initial file manager screen a CDE dialog box opens and asks for options and arguments. If you press **OK**, SPECTRUM installation may not go into the directory that you planned for.

Solution: SPECTRUM 5.0 does not support installation from the CDE file manager. When you encounter the CDE dialog box, bypass it and go onto the regular SPECTRUM installation as documented in the Installation Guide.

Problem 6: If you install SPECTRUM from a virtual tape which has an unknown user id, the installation will fail with a bus error after entering in the source directory.

Solution: Add an entry to the local password file corresponding to the unknown user id and the installation will succeed.

Problem 7: When installing SPECTRUM on the Windows NT platform, the Host Evaluation process may report incorrect minimum requirements for memory and swap space (swap space is called Virtual Memory on NT).

Solution: The warning messages created by the Host Evaluation process can be safely ignored. For the minimum memory and Virtual Memory requirements, please refer to Microsoft Windows NT platform section in Chapter 1 of this Core Software Release Notice. This problem will be **corrected in the next release** of SPECTRUM.

Problem 8: On the Windows NT platform, you are unable to edit any file using the vi Editor. This is because the directory, "`tmp`" was not installed in the `NuTC` directory.

Solution: Add the TMP directory to the following location: `<SPECROOT>/NT-Tools/NuTC/tmp` where `<SPECROOT>` is the installed location of SPECTRUM. This problem will be corrected in the next major release of SPECTRUM.

Problem 9: When you click the **Select Individual Components** button, make changes to the selections then click **Cancel**, the changes are saved just as if you clicked the **OK** button.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 10: When installing SPECTRUM on a Windows NT workstation, the Installation program does not show CD-ROM activity on the CD bar.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 11: At the end of an installation on the Windows NT platform, the **Yes, I want to restart my computer now** option may only log you off the workstation without restarting it.

Solution: Restart the workstation manually.

Problem 12: During an installation, SPECTRUM's SpectroSERVER Validation window allows you to type gibberish characters (in addition to alpha-numeric) such as !@#&%&*()-=_+| and even 1999.9 in the Activation Key, Expiration Date, and Landscape Handle boxes, without pointing out that these entries are in error.

This could cause the installation to fail and/or SpectroSERVER not to start correctly.

Solution: Be sure to use alpha-numeric characters in each box of the SpectroSERVER Validation window with the exception of the Expiration Date.

Problem 13: When installing only SpectroGRAPH on the Windows NT platform, the SpectroSERVER Validation window displays.

Solution: No entries are required. Click, **OK** to dismiss the Validation window and continue with the SpectroGRAPH installation.

Problem 14: When you migrate from SPECTRUM 4.0r3 to 5.0r1 on the Windows NT platform, you receive the following error/warning in the install_log indicating a locked file:

```
Detected existing ddm/StatDB, saving for later
migration.
Saving Name Info
Saving Attribute and Time Data
Saving Statistical String Data
This installation needs to modify the SpectroSERVER
database, which is currently locked. Installation will
automatically resume when the database is unlocked.
Instructions for unlocking the database may be found in
the Database Maintenance section of the SPECTRUM
Administrator's Reference.
Installation suspended: SpectroSERVER database locked
```

Solution: When migrating from 4.0r3 to 5.x, perform the installation as the local Administrator, or a member of the local Administrator's group. If you need to perform the install as a domain user, manually create the dbsavefile.SSdb as a local Administrator before performing the installation. For further assistance, please contact SPECTRUM Support.

Problem 15: On the Windows NT platform, you are unable to edit any file using the vi Editor. This is because the directory, "tmp" was not created in the NuTC directory.

Solution: Add the TMP directory to the following location: <SPECROOT>/NT-Tools/NuTC/tmp where <SPECROOT> is the installed location of SPECTRUM. This problem will be corrected in the **next major release** of SPECTRUM.

Problem 16: When you perform a migration from SPECTRUM 4.0 Rev 3 to SPECTRUM 5.0 Rev x, the migration and database save to file (ddm_save) completes successfully, but you receive the following error messages:

```
ERROR: get_attr_records (), failed to get first
record Saving statistics
ERROR:get_sview_records (), failed to get first
record
```

Solution: You may safely ignore these error messages. They occur because SpectroSERVER has not had a chance to send Statistics and Events to the Archive Manager.

Problem 17: When you perform an Online Backup after a database migration from SPECTRUM 4.0 Rev x to SPECTRUM 5.0 Rev x, the backup completes successfully but you receive the following error messages:

```
Error: NULL attr value passed to attrpack().
```

Solution: You may safely ignore these error messages. They occur because when migrating to a higher version of SPECTRUM, obsoleted attributes are found in the database but cannot be found in the cache catalog. This problem will be corrected in a future release of SPECTRUM.

Problem 18: On the Solaris platform, when you log data for models that have been previously destroyed and then you perform ddm_save of your DDM database, you receive the following warnings:

```
Warning: no time nodes were found for ModelAttr record
WARNING: no data found in sets
```

Solution: This problem will be addressed in a future release of SPECTRUM

SpectroSERVER (VNM)

Problem 1: On systems with multiple CPUs, the cpu usage meters in the VNM performance view are confusing. For example, if there are two processors on a system, the total percent of all running processes on a loaded system will be 200. The total cpu usage however will only be 100.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 2: On the NT platform, SPECTRUM will not recognize NT user accounts even though they exist in the SPECTRUM User Database.

Solution: Ensure that the SPECTRUM user name and NT account name are spelled identically and have the same case.

Problem 3: On the NT platform with User Auditing turned on, every action is audited resulting in many entries to the EventLog, and causing the workstation to become extremely slow.

Solution: Cabletron suggests that NT's User Auditing not be turned on as it will hinder system performance and SPECTRUM may not work as intended. User Auditing can be disabled in Start | Programs | Administrative Tools(Common) | User Manager | Policies | Audit.

Problem 4: SPECTRUM 5.0 does not log External List-type Attributes that have an OID Reference. If you have set the Logged flag in the Model Type Editor for an Attribute that has the External flag set (that is a List-type with an OID Reference) you cannot access data for the Attribute using Data Export, Reports, or a GIB Graph.

Solution: Create a SpectroWATCH for the Attribute that simply logs the value of the Attribute. Then use the Watch's destination Attribute ID in place of the original Attribute's ID in any Report, Data Export definition, or GIB graph. Alternatively, you can use the Model Type Editor to create an Attribute that is a duplicate of the Attribute you intend to log, but not make it List-type. Then use this duplicate in place of the original Attribute. This problem will be corrected in a future release of SPECTRUM.

Problem 5: External List-type Attributes which have an OID Reference display with, "[ ]" in the Attribute Browser, but you are not required to enter an instance to access its value as required for other Attributes displayed with "[ ]."

Solution: Ignore the "[ ]" indicator in the Attribute Browser when accessing External List-type Attributes that have an OID Reference. This inconsistency will be corrected in a future release of SPECTRUM.

Problem 6: On the Windows NT platform, the processd causes a segmentation fault within a fault tolerant environment. This occurs when you attempt to start and stop SpectroSERVER through the Control Panel.

Solution: This problem will be addressed in a future release of SPECTRUM.

Problem 7: Whenever you change the system configuration on the Windows NT platform including the installation of new software or hardware, a segmentation fault may occur causing the SpectroSERVER to Exit (or Shutdown). You will receive an error message that indicates an illegal instruction. NT systems require Service Pack SP3 to run SPECTRUM.

Solution: Install or reinstall Service Pack SP3. SPECTRUM has been validated and is required to run with Service Pack SP3.

Problem 8: On the Windows NT platform, SpectroSERVER does not run on the same workstation that Microsoft SQL, Sybase, and Oracle are running.

Solution: Avoid running any kind of database server on the same Windows NT workstation that also runs SpectroSERVER. If you have to, start SpectroSERVER first, then the Oracle server.

SpectroGRAPH (UI)

Problem 1: The information line within the Find View does not reset its status from blue to green, although the icon for the model does change color as normal.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 2: Selecting **Edit** for the first time in any View causes an error message to appear if you are using an older Sun keyboard that does not have an Insert key. SPECTRUM 4.0 uses the Insert key found on newer keyboards to execute **Paste** and **Copy** shortcuts found in the Edit menu.

Solution: To eliminate the error message and to use the Ins (Insert) key for **Paste** and **Copy** functionality on older Sun keyboards, go to `app-defaults` directory and edit the `.starrc` file with the following changes:

Change the following line:

```
@ACC_SPEC: "Paste" = "Shift<Key>Insert
```

to

```
@ACC_SPEC: "Paste" = "Shift<Key>KP_Insert
```

Change the following line:

```
@ACC_SPEC: "Copy" = "Ctrl<Key>Insert
```

to

```
@ACC_SPEC: "Copy" = "Ctrl<Key>KP_Insert
```

Problem 3: If you choose “Information” or other icon subviews in the Enterprise Alarm Manager main window and SpectroGRAPH is not running, the following message is displayed:
`“Error=Connection lost`
`Unable to create a new spectrum view.”`
In addition, the **Help** button is inoperable.

Solution: If you expect to perform alarm management on a particular workstation without SpectroGRAPH running, install the stand-alone Enterprise Alarm Manager application to perform the management. A dialog message will be added in a future release of SPECTRUM instructing you to restart the SpectroGRAPH if the Alarm View detects one has not yet been started.

Problem 4: On all platforms, control keys do not work if the Num Lock key is on.

Solution: To ensure control keys operate correctly, set the Num Lock key to off.

Problem 5: On a Windows NT workstation you cannot close a window before the application has completed processing. The window close event is not immediately processed on an NT workstation.

Solution: On an NT workstation, use Task Manager to immediately end a task.

Problem 6: On the Windows NT platform, blank images appear when you create a TIFF file using Wang’s Imaging utility (included with Windows NT). This utility produces TIFF files using a non-standard extension to the TIFF specification, which is not supported by SPECTRUM.

Solution: SPECTRUM supports TIFF files created by utilities that conform to the standard TIFF specification. Utilities which convert BMP files to TIFF format files are available as freeware and shareware.

Problem 7: In the Stack Link View on the Windows NT platform, the pipe connecting the two model is split horizontally with black on top and green on the bottom.

Solution: This is a visual problem only derived from bug in Neuron Data's toolkit. This problem will be corrected in a future release of SPECTRUM.

Problem 8: On the Windows NT platform, when you enable "See contents of windows while dragging" in the Control Panel, the display and performance of various SPECTRUM applications (i.e., SpectroGRAPH and Model Type Editor) may be affected.

Solution: Avoid enabling opaque window dragging by not turning on "Show window contents while dragging." This feature can be turned off in Control Panel | Display | Plus!. This problem will be corrected in a future release of SPECTRUM.

Problem 9: On the Windows NT platform, foreign characters are not displayed correctly in the SpectroSHELL.

Solution: The SpectroSHELL does not support foreign characters. This problem will be corrected in a future release of SPECTRUM.

Problem 10: On the Solaris platform, when you change the background size of the Universe view to a larger size than the default size, close the edit, maximize the view, and then move the view, the menus appear to remain back at the position where the view was before moving it. Menu appear to be floating outside the view.

Solution: This is a problem with MOTIF. Sun Microsystems has been alerted to this problem which is under investigation. Try to avoid resizing the SpectroGRAPH window.

Problem 11: When printing from a Windows NT workstation to a non-postscript printer, the output will be in black and white with no grayscale. Icons and highlighted text become difficult to read. Plain text, however, is readable.

Solution: Print to a postscript printer when you need to maintain grayscale images. This problem has been a known limitation of the Neuron Data toolkit on Windows NT.

Problem 12: When you manually create device in a Topology view and you manually connect the device (an unresolved connection) to a network icon, the Off Page Reference icon of that device still remains if you later erase (not destroy) that device. This occurs when you Erase the device, SPECTRUM still detects a relation to the discovered network of resolved connections.

Solution: Because this is an unresolved connection user connection, this problem will persist. This problem does not occur when the pipe connections are “resolved” meaning that SPECTRUM was able to detect how the two models are actually connected.

Problem 13: When the Print dialog is displayed on the Windows NT platform, “All” is automatically selected, the From/To range says “1” to “1”, but the entire view still prints out. It may print out more than one page for the view.

Solution: This is a problem with Neuron Data’s print graphical user interface and not a SPECTRUM problem.

Problem 14: On the Windows NT platform, when you run RepGRFtoGif from the command line, you could receive a fatal error.

Solution: This is a problem with NutCracker and will be corrected in the next major release of SPECTRUM.

Problem 15: On the Windows NT platform, the NuTC1.6bfix1 version of the MKS Kornshell does not support foreign character sets. Accent keys such as the apostrophe, tick mark and the caret do not work properly.

Solution: Use the DOS prompt with the standard ASCII character set in the latest (v6.1) version of the MKS Kornshell.

Problem 16: On the Solaris 2.6 platform, SpectroGRAPH occasionally causes a fault segmentation when using the right mouse button.

Solution: Patch 105284-10 for Solaris 2.6 fixes this problem and is now a required patch to run SPECTRUM on the Solaris 2.6 platform.

Problem 17: On both Windows NT and Solaris 2.5.1/2.6, when you shut down processd, SpectroGRAPH core dumps.

Solution: This problem will be corrected in the next major release of SPECTRUM.

Problem 18: When a Solaris SpectroGRAPH is connected to a Windows NT SPECTRUM 5.0.1 SpectroSERVER, a core segmentation fault occurs when you repeatedly destroy models found after an AutoDiscovery and with long model names which now exist in SPECTRUM 5.0.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 19: On the Windows NT platform, when you print a .GRF report on a Hewlett-Packard series 5 printer, the X and Y axis as well as part of the heading are missing. However, on screen they display correctly.

Solution: This is a Neuron Data problem (Neuron Data bug problem ID #8843).

AutoDiscovery

Problem 1: On networks using Network Health3.0 on the Solaris 2.5.1 platform, AutoDiscovery fails to find models after completing a discovery process. You receive the message, "`No elements were found or discovered.`"

Solution: Network Health 3.0 (a third-party software) currently does not support a speed over 2.1 GBytes (31-bit calculations).

Problem 2: AutoDiscovery may fail to discover a Token Ring the first time AutoDiscovery is run. It may find one ring while failing to find another ring.

Solution: Run Ring Discovery, and the missing ring will be found.

Problem 3: On the Solaris 2.6 platform, when you start AutoDiscovery it immediately aborts with the following message:

```
"AutoDiscovery started at - <time stamp>
Beginning of Router Discovery Section
Error: Auto Discovery received an unexpected
error code 2 from Network Discovery.
AutoDiscovery completed UNSUCCESSFULLY.
```

Solution: Shut down AutoDiscovery and SpectroGRAPH when shutting down SpectroSERVER so as to not initialize the database. Then run AutoDiscovery. This problem will be corrected in a future release of SPECTRUM.

Problem 4: On the Solaris platform when you abort AutoDiscovery and restart it quickly after making a change, you receive a message that AutoDiscovery is still running.

Solution: Wait several minutes before restarting AutoDiscovery. This problem will be corrected in future release of SPECTRUM.

Problem 5: When you perform an ATM discovery all ATM devices and their containers are correctly discovered and placed. However, devices that are connected to the Internal Network Bus (INB) backplane of an MMAC+ chassis are placed into the Universe view where they do not belong.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 6: Autodiscovery does not autoplace devices discovered in an ATM_network.

Solution: This problem will be corrected in a future release of SPECTRUM.

Alarm Manager

Problem 1: Newly created Alarm Descriptions in SpectroWATCH will not display in the Alarm Manager if the Alarm Manager was running at the time the watch and its custom Alarm Description was created. The alarm itself is displayed but without the custom new Alarm Description.

Solution: Exit then restart the Alarm Manager. The new view will be updated with your custom alarm description. This problem will be corrected in a future release of SPECTRUM.

Problem 2: When Alarm Manager shows alarms for both a primary and a duplicate of the primary model and then you lose contact with the primary model, if you display the filter window you see only the data for the primary alarm.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 3: When you assign a troubleshooter to a remote SpectroSERVER and that server is later shut down and restarted, the assignment no longer exists. This is not a problem when troubleshooters are created on the host SpectroSERVER.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 4: On the Windows NT platform, the Auto Raise option does not bring the Alarm Manager to the front when a new alarm is created.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 5: When you have both the Netscape mail window and the main Netscape window iconified, when you click the Hints button the Netscape browser window toggles between the main Hints page and Netscape mail window.

Solution: This is a problem with Netscape 4.0.3 and 4.0.4.

Problem 6: On the Solaris platform, when you create a duplicate model, open the Alarm Manager from the duplicate model, open the popup view navigator menu off the alarm model, then select device -> Chassis, you receive the message: `SpectroSERVER Error: Cannot recover, must return to previous view.`

Solution: Return to the previous view. This does not have any adverse affects and seems to occur on the Olicom Wire Speed Bridge program Model type GNSNMPDev. This problem will be corrected in the next major release of SPECTRUM.

Problem 7: When choosing Help/Hints in the Enterprise Alarm Manager on the Windows NT platform, you receive the following Netscape error:
`Error: temporary directory C;\TEMP does not exist. Please enter a new directory in the preferences box.`
This occurs because instead of reading the `C:\TEMP` directory it attempts to read `C;\TEMP` instead.

Solution: Click the **OK** button in the error dialog box and the Netscape Navigator window opens with Hints help. This problem will be corrected in a future release of SPECTRUM.

User Editor

Problem 1: When you copy one UserGroup from one Landscape to another Landscape, the Users inside the UserGroup do not get copied over with the UserGroup.

Solution: Manually drag and drop or copy each user into the UserGroup on the new Landscape. This issue will be addressed in a future release of SPECTRUM.

Enterprise Configuration Manager (ECM)

Problem 1: The Enterprise Configuration Manager (ECM) cannot use External List-typed Attributes that have OID References within configurations. If you create or capture a configuration in ECM you receive the error message, “No instance exists.” for any External List-type Attributes that have an OID Reference.

Solution: Use the Model Type Editor to create an identical Attribute to the one you need to use in configurations, but not make it List-type. Then use that new Attribute in configurations to access and set the value on the device. This problem will be corrected in a future release of SPECTRUM.

Event Configuration Editor (ECE)

Problem 1: When you perform a partial installation of SPECTRUM with the exception of SpectroSERVER, and you select the Event Configure Editor from the Configure menu with a valid server name, an error box displays stating the following:

```
Error: The directory /usr/Spectrum/5.0/SS/CsVendor
cannot be found. Restart with a valid vendor directory
(ex: ECEditor -vendorDir SS/CsVendor)
```

Solution: For SPECTRUM 5.0.0, please install both SpectroServer and SpectroGRAPH if you want to use the ECEditor.

Problem 2: When you remove valid tags from the Alarm Messages and then try to save, you receive an error message that a valid tag has been inserted. But after the tag is inserted, the event is not saved.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 3: Not all vendor event files that are shipped with SPECTRUM are read/writable. This affects the use of the Event Configuration Editor since some event files need to have their permissions changed to make them read/writable.

Solution: To make a vendor file read/writable, you may have to change permissions to the files found in the following directories including the directories themselves: CsVendor, CsEvFormat, and CsPCause. This problem will be corrected in a future of SPECTRUM.

MIBTools

Problem 1: On the NT platform, the MIBTools application may not appear under the Icon Subviews Utilities menu. Installation logs may report that "`MIBTools failed to register properly`" even though SPECTRUM installed successfully. The install logs are located in the following directory:

```
$SPECROOT/LOGS_xxxxxx
```

You may also receive the error message, "`Application failed to initialize properly.`"

Solution:

1. Locate the `mibmgr.exe` file using File Manager or Explorer and double-click it. This starts the MIBTools application. If the application fails to start, you must reinstall SPECTRUM.

2. If you are successful in starting MIBTools but the database seems to be empty, you must check to see if two database files are present. These files, `csmibds.mdb` and `tempdb.mdb`, are located in the following directory:

```
$SPECROOT/mibtools/db
```

If you still cannot access MIBTools or the databases are empty, call SPECTRUM Phone Support.

Problem 2: On the Solaris platform, when you access the MIB menu, the MIB2 view is very dark making the menu items difficult to read.

Solution: In `.Xdefaults` file, choose a set of foreground and background colors that provide better contrast. Try changing the colors in the following resources: `OpenWindows*background` and `Mwm*background`.

Problem 3: On the Solaris platform, when you open MibTools from any Utilities menu and you select the Device Editor, then the Import view, the mouse pointer disappears when you start typing when the pointer is in a text field.

Solution: Move the cursor outside of the text field before typing. If the cursor disappears, move the mouse around the view which makes it visible again then press Enter to regain the mouse in the view.

SPECTRUM Converter

Problem 1: If you migrate a SPECTRUM 4.0 Rev 3 UNIX database to version 5.0 on a Windows NT workstation and then attempt to change the landscape handle using the Converter, the conversion may fail.

Solution: Before attempting to change the landscape handle using the Converter on an Windows NT database that was migrated from UNIX, please call SPECTRUM Technical Support or contact your Field Support Representative.

SPECTRUM Control Panel (CPanel)

Problem 1: When the processd is shutdown, the Control Panel dialog boxes have no title causing you not to know where these errors originated from or what the errors are unless you click it.

Solution: This problem will be corrected in the next release of SPECTRUM.

Problem 2: On the Solaris platform, if you install SPECTRUM and then SpectroSERVER is started by someone else, you do not always see an error message indicating that someone who may not have the appropriate file permissions is attempting to start the server.

Solution: Ensure that your approved users are members are part of the same group and that the directories they need to use have the appropriate group permissions set. Applicable error messages will be addressed in a future release of SPECTRUM.

Annotation Toolbox

Problem 1: The following fonts may not work correctly:

The **Application** font (at any size) changes to Symbol when not bolded or italicized;

A wrong font displays when you change the **Fixed** font to a different font (not bolded) at sizes 0, 16, and 24. If bolded, the font works correctly;

When you choose the **Mincho** font, it displays with foreign lettering regardless of size, slant, and height;

When you enlarge the **Open Look Glyph** font, the letters become too high and get cut off.

Solution: The above font behaviors are not SPECTRUM font errors but are based on the font architecture themselves.

Problem 2: When you select the **Mincho** font and select both the Keep Tool and Font Tool, nothing appears when you type in the SPECTRUM edit screen. When you click and drag a box around the typed area, highlighted spaces appear which can be erased. If you click and drag a box around the area again, nothing is highlighted. Everything you previously typed has been erased.

Solution: The existing Annotation Toolbox will be replaced with a new and improved version in a future release of SPECTRUM.

Web Alarm View

Problem 1: The Web Alarm View will not have access to Probable Cause and Event Format files when the workstation that the Web Alarm View is on does not have SPECTRUM core files installed.

Solution: There are two options for accessing Probable Cause and Event format files. The first option is to copy the Probable Cause and Event files from a workstation which has SPECTRUM core files installed to the workstation that has the Web Alarm View installed. The second option is to directly access (from the Web Alarm View workstation) the files on the SPECTRUM core installed workstation. These steps have been addressed in the Web Alarm View User's Guide.

Problem 2: The Web Alarm View creates html pages which are dynamically updated. However, Netscape Enterprise Web Server version 2.0 does not dynamically reload changing files. The result is incorrect or out-of-sync data being displayed in the Web Alarm browser window even though viewing the alarms.html file shows the new alarm.

Solution: This is a bug in Netscape Enterprise Web Server 2.0. You must disable Netscape Enterprise Web Server's cache. To do this add a new Init function to `obj.conf`. Add to the beginning of `obj.conf` with the other Init directives. Init `fn=cache-init disable=true`. Once added to the `obj.conf`, go into the Admin Server and click the **Apply** button in the upper right of the category frame. When the Admin server notifies you of the manual edits, choose to load the current configuration files.

Problem 3: The text for Probable Cause files will not update to display correctly if you have already started the Web Alarm view. This occurs since the Probable Cause files do not get re-generated.

Solution: This problem will be corrected in the next major release of SPECTRUM.

SPECTRUM MALT (MAC Address Locator Tool)

Problem 1: On the Windows NT platform, when you run MALT, select both Port Activity and Bridges/Switches, bring up the Task Manager, select the Applications tab, and you try to twice open the device (any device), the cursor changes to the hour glass and remains so.

Solution: Access the Task Manager and end the task. This problem will be **corrected in the next release of SPECTRUM.**

Problem 2: On the Solaris 2.5.1 platform, when you telnet from a remote workstation into another workstation running SpectroSERVER, start MALT, enter a Mac address, then highlight a device and select Open, the DevTop View opens on the SpectroSERVER workstation instead of the remote workstation. You receive no message that a SpectroGRAPH session needs to be running.

Solution: MALT does not open the DevTop View of a device on a workstation which does not have SpectroGRAPH running when using a telnet session. An error message which tells you that SpectroGRAPH needs to be running will be included in a future release of SPECTRUM.

Online Documentation

Problem 1: When searching on the documentation roadmap off the documentation CD, you could receive one or both of the following error messages:

1. `This document was created after the indexes were built.`
2. `This document could not be found: it has either been moved, deleted, or you don't have permission to view it.`

Solution: For the first error message, click **OK** and the title page of the manual appears. You may continue your search from there. For the second error message, click **OK**, but you must manually open the document from the roadmap itself and then perform a local search. This problem will be corrected in a future release of SPECTRUM.

Problem 2: When choosing Help/Hints in the Enterprise Alarm Manager on the Windows NT platform, you receive the following Netscape error:
`Error: temporary directory C;\TEMP does not exist. Please enter a new directory in the preferences box.`
This occurs because instead of reading the `C:\TEMP` directory it attempts to read `C;\TEMP` instead.

Solution: Click the **OK** button in the error dialog box and the Netscape Navigator window opens with Hints help. This problem will be corrected in a future release of SPECTRUM.

Problem 3: On some Solaris systems, when you view Online documentation from the Roadmap, the graphics sometimes appear grainy or dithered.

Solution: This problem will be addressed in a future release of SPECTRUM Online Documentation.

Problem 4: On Solaris workstations using Open Windows, when using context-sensitive Help (for the second time) on an application view, the popup window appears and then disappears quickly by itself.

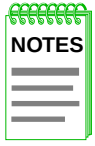
Solution: This is a problem within the Open Windows environment. Use X-Windows as an alternative. This problem will be addressed in a future release of SPECTRUM.

SPECTRUM Online Backup

Problem 1: On the Solaris platform, online backups could take a long time and possibly hang on slower, older workstations without enough RAM or with a lot of models.

Solution: Refer to the Sizing tool discussed in Chapter 1. Data gathered from running this tool can help determine the number of SpectroSERVERS your enterprise needs to efficiently manage your distributed network.

SPECTRUM Reports



Be aware of the following when you use SPECTRUM Reports:

- Relational reports are no longer supported.
- In the Report Formatter, if the expression exists within a report format that you want to modify, do not remove any attributes that are located in columns before the expression column.
- If you are using top-n in the line data of a Statistical report, the summary portion, where the totals are displayed, is based on the entire report, not just the sorted data.
- On the Solaris platform, if scheduled reports are not occurring at their specified time, it may be necessary to stop and restart your cron daemon. Contact your system administrator for more details regarding cron on your workstation.
- The <poll time> fixed data type should not be used in an expression.
- In Graphical Reports, if data cannot be obtained from a device or a model at a given time, the data for that time is graphed as 0.
- In Graphical Reports, respecifying a .GRF file is treated the same way as Loading one. That is, if any options are stored in the .GRF file, they will be reloaded whenever a Respecify or Load is performed.
- If you create an attribute with the Model Type Editor and want to place it in a Report Header, you must set the Readable, Writable, and Database flags for that attribute; otherwise, that attribute will be blank.
- The SPECTRUM 5.0 version of Reports is not supported by a SPECTRUM 4.0 Rev 3 SpectroSERVER.

Problem 1: On the Solaris platform, if a Rib file does not exist for a selected model type, saving a file using the Statistics template under the Report Formatter causes the file to be saved in the Templates directory rather than in the Statistics directory.

Solution: Choose the **Save As** command and navigate to the appropriate model type directory to save your file.

Problem 2: If a reports output directory specified in the `Reports` resource file does not exist and you try to bring up the Reports Display, you get a list of all files in the current directory.

Solution: Make a backup copy of the `Reports` resource file. Edit the output directory parameter in the Reports resource file so it specifies a valid directory.

Problem 3: Using the Window Manager to close windows may cause inconsistent results.

Solution: Use the **OK** or **Cancel** buttons to close dialog boxes.

Problem 4: If you are working in the Rib Editor and the SpectroSERVER crashes, all unsaved data is lost.

Solution: You must reenter the data.

Problem 5: On the Solaris platform, both regular and error dialog boxes can be covered by their parent dialog box if the user clicks on the title bar of the parent window.

Solution: This problem is expected to be corrected in a future release of Solaris' Window Manager.

Problem 6: On the NT platform, tabular displays are only 80 columns wide. If you resize the window to make it larger, the text does not resize.

Solution: This problem may be addressed in a future release of SPECTRUM.

Problem 7: In the Report Formatter, if you attempt to add a Compute field at the end of either the Line Data or Summary Data regions, data corruption may occur.

Solution: If you need to place a Compute field at the end of a line, make sure first that the Page Width setting is large enough to accommodate the Compute field.

Problem 8: In the Report Formatter on the NT platform, if you preview the Rib file currently being worked on, the last line may contain a couple of extra characters.

Solution: The extraneous characters do not appear in the saved Rib file or in the report.

Problem 9: If you are running more than one Report Generator on the same machine, when a report completes, a "Report Completed" dialog box appears for every Report Generator that is running on that machine.

Solution: Do not run multiple Report Generators on the same workstation.

Problem 10: On the NT platform, colors on Up/Down Time report pie graphs that have small percentages of uptime or downtime may not appear correctly (either no color appears or colors are inverted).

Solution: This is not a problem with SPECTRUM Reports but rather with a defect with Neuron Data (their defect #10660).

Problem 11: On the NT platform, colors on Alarm report pie graphs may not appear correctly or may be obscured.

Solution: This is not a problem with SPECTRUM Reports but rather with a limitation with Neuron Data.

Problem 12: On the NT platform, the scroll bars for tabular reports do not function properly.

Solution: This is not a problem with SPECTRUM Reports but rather with a limitation with NutCracker.

Problem 13: The Rib Editor previewer goes blank after a few minutes. In addition, when you try to load another file, the file selection box will not let you change directories; clicking **OK** then causes the Rib Editor to exit.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 14: If a landscape that is in the preferred landscape list is shut down while you are in a Statistics or Events dialog box, a subsequent attempt to expand a model type causes the user interface to freeze.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 15: SPECTRUM allows reporting on secure models, even though user access to these models is denied in SpectroGRAPH.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 16: On the Windows NT platform, a user who is not a member of the Administrator's group cannot run the NT Scheduler. This is a restriction of Microsoft's NT Schedule Service.

Solution: A member of the Administrator's group should log onto the user's workstation and set the Scheduler up by default to be "Automatic"– automatically on. Then the Scheduler may be used once the user logs back on to the workstation. This problem will be corrected in a future release of SPECTRUM.

Problem 17: When you run a report on a GnSNMPDev device, you do not generate any information because the value in this device model type's shared attribute, Vendor_Object_ID, is blank. It has no value that is specific to GnSNMPDev.

Solution: This problem will be corrected in a future release of SPECTRUM.

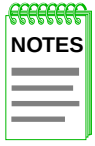
Problem 18: On the Windows NT platform, the Reports interface fail to display (**File -> Reports -> Generate**) if you change the landscape of your database through lh-set. The *PreferredLandscape resource in the app-defaults file does not get changed. In a SpectroSHELL, you can repeat the command 6 times and see the Reports interface flash for an instant, then get returned to the prompt. No error messages are generated but you receive the following message: `D:/Win32app/Spectrum/SG../SG-Tools/MsgCat.`

Solution: This problem will be addressed in a future release of SPECTRUM.

Problem 19: On a Windows NT SpectroGRAPH that is running against a Solaris SpectroSERVER, if you try to start the Report Generator, the executable starts and tries to appear but then blinks and fails to start.

Solution: Add the remote server's landscape handle in the `*PreferredLandscapes` handle found in the Reports file located in: `$SPECROOT/app-defaults/Reports`. Scroll down to `*PreferredLandscapes` and add the remote server's landscape handle.

SPECTRUM Data Export



Be aware of the following when you use SPECTRUM Data Export:

- On the Solaris platform, if scheduled exports are not occurring at their specified time it may be necessary to stop and restart your cron daemon. Contact your system administrator for more details regarding cron on your workstation.
- Oracle exports will not import all of the data to the Oracle database if the table space is inadequate. Make sure that the Oracle database contains enough table space to import all Oracle data.
- The SPECTRUM 5.0 version of Data Export is not supported by a SPECTRUM 4.0 Rev 3 SpectroSERVER.

Problem 1: An error may occur if several models are selected from multiple landscapes and re-selecting the Events filter box. You receive the error message, “Unable to obtain any models from all preferred landscapes.”

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 2: SAS export may not complete if multiple landscapes were selected and one of those landscapes failed during the export.

Solution: This problem should be corrected in a future release of SPECTRUM.

Problem 3: When exporting to Oracle, a log file will not be created if the SDE definition file has the same name as the table name.

Solution: This problem will be corrected in a future release of SPECTRUM.

Problem 4: When you export using a UNIX based Oracle server and Windows NT as the client the export completes but you are unable to view the table even though the table exists in the database. Since the Oracle server is on UNIX and the client is on NT, this becomes a heterogeneous environment when a homogenous environment is needed. You receive an error message that says: "`Error checking path homogeneity ORA-02352: Direct path connection must be homogeneous`"

Solution: Oracle provides a suggestion as a workaround to this problem. If the client and server are not of the same platform, you must use a conventional path load... "Use conventional path load." This is discussed in Chapter 9, "Direct Path Loads" of the *Oracle 7 Server Utility User's Guide.*

Problem 5: Exports to Sybase on the Windows NT platform fail because the 10.0 /10.0.3 versions of Sybase Open Client do not correctly handle the syntax, ! !, on Windows NT.

Solution: Cabletron recommends that you upgrade to Sybase Open Client, Release 11.

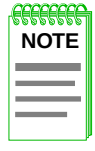
Appendix A

Model Conversion

This appendix describes how to perform the conversions required for SPECTRUM models of certain Cabletron and third-party vendor devices after you have upgraded from a previous version of SPECTRUM to version 5.0.

Updating Obsolete Models

Version 5.0 of SPECTRUM supports both the older and newer model types associated with management modules listed in the **Upgrade Warning** section of Chapter 1. ***Before*** you upgrade to SPECTRUM 5.0, you must convert all models created with the older model types to models of the newer model types in order to ensure compatibility between your database and future SPECTRUM upgrades. Subsequent SPECTRUM 5.0 releases will include only the newer model types. The old model types will be deprecated. If you have questions about converting model types, the conversion procedure, or any errors you may experience during the conversion, contact your SPECTRUM field support representative.



If you plan to use Distributed SpectroSERVER capabilities, you should perform model conversion prior to partitioning your database

Conversion Programs

SPECTRUM provides the **DBconv** utility, as well as a resource file for each of the management modules that support both old and new model type versions. These files are named according to the convention **rc.<abbreviated model type name>**. For example, the resource file for Ungermann-Bass hub models is called **rc.ubhub**, and it is located in the `SS-Tools` directory shipped with your new version of SPECTRUM.

Use the SpectroGRAPH **New Model** selection option under the Edit menu to determine which model types exist in your database. Then perform the following procedure for EACH model type to be converted. (For this set of instructions, the **rc.ubhub** file is used.)

1. Ensure that SpectroSERVER is running and SpectroGRAPH is NOT running.
2. Open the appropriate resource file with a text editor.
3. The file lists the model type handles for the old model types, immediately followed by a list of the new model type handles for the model types included in the management module. (See Example 1)

Example 1:

```
#########################################################################
# Database Conversion program needs to know the MODEL_TYPE_HANDLES for
# the old and new model types. One invocation of database conversion
# program will convert models of only one OLD model type into new
# models of corresponding NEW model type.
#
#    Old model types:                  New model types:
# 0x1b005a     Hub_UB_790s4        0xca001b    HubUB790s4
# 0x1b0058     Hub_UB_700fo        0xca0019    HubUB700s_fo
# 0x1b000e     Hub_UB_780          0xca0011    HubUB780
# 0x1b0056     Hub_UB_790          0xca0015    HubUB790
# 0x1b0054     Hub_UB_760          0xca0013    HubUB760_br
# 0x1b005b     Hub_UB_700au        0xca0016    HubUB700s_au
# 0x1b0059     Hub_UB_700s         0xca001a    HubUB700s
# 0x1b0057     Hub_UB_790s16       0xca0018    HubUB790s16
# 0x1b0055     Hub_UB_710          0xca0014    HubUB710_br
# 0x1b0053     Hub_UB_700          0xca0012    HubUB700
# 0x1b005c     Hub_UB_700tp        0xca0017    HubUB700s_tp
#                                  0xca001c    HubUB701(Newly added)
#
#########################################################################
```

4. Using the model type handles listed above, change the value of the old model type handle (old_mtype) and the value of the new model type handle (new_mtype) for the individual model type you wish to convert (See Example 2).

Example 2:

```
#########################################################################
# Database Conversion program needs to know the MODEL_TYPE_HANDLES for
# the old and new model type. One invocation of database conversion
# program will convert models of only one OLD model type into new
# models of corresponding NEW model type.
#########################################################################


old_mtype = 0x1b005a # Hub_UB_790s4
new_mtype = 0xca001b # HubUB790s4
```

5. If you have changed the Landscape Handle from its default value of 0x400000, you must remove the comment symbol (#) from the beginning of the **#landscape_handle** line and change the value of your Landscape Handle accordingly. With the comment symbol in place, DBConv will automatically use the 0x400000 default value to contact SpectroSERVER.

6. Navigate to the **#right_rel_to_ignore** and **#left_rel_to_ignore** lines, and if a comment symbol (#) exists at the beginning of each line, remove the comment symbol.

7. If you wish to convert only a portion of the models present, you can remove the comment symbol from the **#models_to_convert** line and enter a specific number of models to be converted. This will cause the DBConv utility to selectively convert the number of models you specify from among those present in your database. Leaving the line commented (with the # in place) will convert all models of the specified type with which SpectroSERVER has established contact.

8. Save your changes and exit the resource file.

9. Run DBconv, specifying which SpectroSERVER to connect to and the resource file for the model type to be converted. It is a good idea to first get into the `SS` directory. When you are there, type the following usage that includes `SS-Tools` in the path:

   ../SS-Tools/DBconv <name of vnm host> rc.<**abbreviated model type name**>

   (Example: **../SS-Tools/DBconv monarch ../SS-Tools/rc.cisco**)

10. The program will proceed through a short initial phase and a longer second phase, noting on-screen which phase is in effect. Models that have not been contacted will not be converted and error messages will be displayed. Examples of these error messages are shown in Example 3.

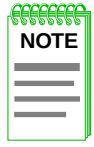
Example 3:

```
Error in reading model type names
Possible Causes:
```

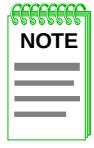
1. Specified Model Types don't exist in the database.
2. SpectroSERVER is not responding.
3. SpectroSERVER doesn't have a model for your user-id.

11. Repeat this procedure for each model type that needs to be converted.
12. After verifying the success of the conversion, save your SPECTRUM database

Archive or remove any database save files left from SPECTRUM 4.0 Rev 3. They can no longer be used to recover a database under the new release. Attempting to restore a SPECTRUM 5.x database with a 4.x database save file will render the existing 5.x database unusable.



After you have installed SPECTRUM 5.0 and run the DBconv program for all the old model types, the system "expects" new model types only. If you then create a model using one of the old model types (e.g., Rtr_cisco_IGS instead of Rtr_CiscoIGS), it will generate an Event00010644 model mismatch alarm.



Watches created on newer versions of **DBconv**erted model types (see the Upgrade Warning in Chapter 1) do not survive conversion under SPECTRUM 5.0. You must rebuild those watches in order for them to function under SPECTRUM 5.0.

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